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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT

PAPER NUMBER

1794

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/743,337	<b>Applicant(s)</b> TAKASU ET AL.	
	<b>Examiner</b> Marie R. Yamnitzky	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008 (18 July 2008).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-14, 17-20 and 23-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-14, 17-20 and 23-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1794

1. This Office action is in response to applicant's amendment received July 18, 2008, with a copy of an auto-reply facsimile transmission showing original submission on April 11, 2008.

(To date, the original has not been scanned into the IFW.)

Applicant's amendment amends claims 2, 4, 6, 9, 11 and 28-32, and cancels claims 1 and 22.

Claims 2-14, 17-20 and 23-52 are pending.

2. In the resubmitted amendment received July 18, 2008, the last line of claim 6 is partially obscured by facsimile transmission information, and at least one line of text appears to be obscured at the bottom of the second page of the Remarks section. Applicant is respectfully requested to provide a clean copy of the claims in any response to this action, even if no further amendment is made to any of the claims. (The examiner interprets present claim 6 with the expectation that the partially obscured line reads --R<sub>7</sub> and R<sub>8</sub> of (b-1) are identical, and each of R<sub>7</sub> and R<sub>8</sub> is a phenyl group.--.)

3. The issues raised in the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, as set forth in the Office action mailed January 11, 2008 are overcome by claim amendment.

All prior art rejections set forth in the Office action mailed January 11, 2008 are overcome by the claim amendment to each of the present independent claims requiring (an) ammonium perchlorate. While Towns et al. suggest a layer comprising a polymer having

Art Unit: 1794

general formula (I) as a repeating unit, Towns et al. do not teach or suggest (an) ammonium perchlorate in the layer.

4. Claims 2-14, 17-20 and 23-52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Each of the present independent claims has been amended to require a layer comprising “an ammonium perchlorate” and a polymer having general formula (I) as a repeating unit. The limitation of an ammonium perchlorate in the layer is said to be supported by the specification at page 20, lines 1-5. The examiner respectfully disagrees. While page 20 teaches using ammonium perchlorate as a supporting electrolyte for the electrolytic polymerization process used to make the polymer, the application as originally filed does explicitly disclose that ammonium perchlorate remains in the finished product. It is not clear that ammonium perchlorate will necessarily be present in the electroluminescent element comprising the layer made by electrolytic polymerization as described on page 20 of the specification. After the light-emitting layer is electrochemically formed, the layer is washed with water and vacuum dried as taught at p. 20, l. 14. It is questionable whether ammonium perchlorate remains in the layer comprising the polymer having formula (I), particularly since the layer is washed with water and ammonium perchlorate is water soluble.

Also, to the extent that “an ammonium perchlorate” may encompass substituted derivatives of ammonium perchlorate (e.g. tetraalkylammonium perchlorates) in addition to ammonium perchlorate per se, support for such derivatives is not clear.

5. Claims 2-14, 17-20 and 23-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of the present independent claims has been amended to require a layer comprising “an ammonium perchlorate” and a polymer having general formula (I) as a repeating unit. It is not clear if the recitation of “an ammonium perchlorate” requires ammonium perchlorate per se. Alternatively, it is not clear if “an ammonium perchlorate” encompasses substituted derivatives of ammonium perchlorate such as tetraalkylammonium perchlorates, which are known to be useful as supporting electrolytes for electrolytic polymerization (e.g. see col. 5, l. 43-48 of US 6,602,395 B1 to Zhuang et al., and see col. 2, l. 65-66 of US 6,291,621 B1 to Tan et al., both patents of record).

6. Miscellaneous grammatical corrections:

In claims 40 and 41, in the phrases “each of which including” and “each of which comprising”, either “of which” should be deleted, or “including” should be changed to --includes-- and “comprising” should be changed to --comprises--.

Art Unit: 1794

In claims 45 and 46, --is-- should be inserted before “provided” in both occurrences of the phrase “each of which provided”.

7. Applicant’s amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

/Marie R. Yamnitzky/  
Primary Examiner, Art Unit 1794

MRY  
October 06, 2008